PROLOGUE: a step forward in European road safety research

In the summer of 2009, the Grant Agreement between the European Commission and SWOV Institute for Road Safety Research was signed and the PROLOGUE project started on 1 August 2009. PROLOGUE stands for Promoting real Life Observations for Gaining Understanding of road user behaviour in Europe. PROLOGUE has its own website: www.prologue-eu.eu

Better understanding
PROLOGUE aims to assess the feasibility and usefulness of a large-scale European naturalistic driving study and to create a market for this type of research. Naturalistic driving studies will lead to a better understanding of the factors that affect road safety and will help to realise a safe road transport system by making use of, for example, in-car technology, self-explaining roads, driver training, et cetera. This naturalistic approach is also expected to shed light on particular issues related to road traffic management and eco-driving.

Reliable picture
In the typical naturalistic driving study, traffic situations and drivers are studied in an unobtrusive way by using small cameras and other equipment, placed in drivers’ own cars, during ordinary day-to-day trips, and without the presence of a test supervisor. Naturalistic observations of pedestrians and cyclists can be effectuated by means of site-based fixed cameras. Experiences in the US showed that this approach gives a reliable picture of the road users’ natural behaviour and enables the analysis of the interaction between road user, vehicle, road, and other road users under normal conditions, in conflict situations, and in crashes.

The work in PROLOGUE
The work in PROLOGUE includes a number of small-scale pilot studies in different research areas, including novice drivers, vulnerable road users and in-vehicle information systems. The work also includes the identification of potential application areas and research questions for which the naturalistic approach would have added values. It will use literature, existing international networks, and a user forum. In a similar way, the available technology for data collection, data storage and data analysis will be identified as well as the methodological, organisational and legal requirements for naturalistic studies.

Potential users: not only researchers
Communication and dissemination are considered of crucial importance to the project, since PROLOGUE wants to gain the support of all sorts of potential users of naturalistic driving results. Therefore, the project aims not only at road safety researchers, but also on stakeholders like car industry, insurance companies, police, driver training and certification organisations, road authorities, and governments.

Consortium
PROLOGUE is carried out by a consortium of nine partners from seven countries, coordinated by SWOV Institute for Road Safety Research. It is a two year project in the 7th Framework Programme and funded mainly by the European Commission, DG Research.
Over the past 25 years significant improvements in road traffic safety have been achieved. However, each day more than 100 people still die on European roads and many more get severely injured. The number of deaths (in 2008 around 39,000 people died in road traffic accidents in Europe) and injuries due to road traffic accidents remains unacceptably high and is still a key challenge for European and national decision makers.

Road safety needs to be improved using all available strategies including stricter traffic rules, public education, training, safer cars, trauma care and better roads. All stakeholders (public authorities, private users, road hauliers and the automotive industry) play an important role to improve road safety on our roads. The EU has broad scope to act on road safety and has been active in supporting and adding value to the efforts of Member States. In the framework of all their road safety policy initiatives, the European Commission uses a broad variety of instruments, such as legislation, European-wide road accident databases, best practice guidelines, awareness raising, studies and financial support to research projects within the RTD Framework Programmes.

Road safety research projects, co-funded under the RTD Framework Programmes of the European Union, have promoted new technological developments, like new safety devices in vehicles, processes or services. These developments have considerable impacts on the improvement of the safety of vehicles and road infrastructure, and to improve driver behaviour and the enforcement of traffic rules. Through the PROLOGUE project the Seventh Framework Programme of the European Union is also funding research related to naturalistic driving. Based on experiences so far in the USA, naturalistic driving studies can contribute to improving the understanding of road users behaviour substantially and hence to realise effective road safety measures. Moreover, naturalistic studies are likely to provide useful information to improve eco-driving and traffic management, two other important aspects in the Transport area.

I am pleased to say that with the PROLOGUE project, which started in August 2009, we are now exploring the possibilities, conditions and requirements for a large-scale naturalistic study in Europe. As the Project Officer, I wish the PROLOGUE team lots of success with this challenging job.

Ludger Rogge
European Commission, DG Research

First PROLOGUE workshop on 18 February in Brussels

On 18 February in Brussels, the first PROLOGUE workshop will take place. This workshop will focus on the potential of naturalistic driving for different user groups, the experiences so far and the expected added value of a European naturalistic driving study. There will be plenty of time for discussion and questions. For the latest updates about the programme, the location and the exact times, please go to the project’s website www.prologue-eu.eu. For free registration you need to go to www.reglist24.com/prologue or send an e-mail to ursula.pfann-winter@kfv.at. More information is available at infoprologue@swov.nl.

The second and final PROLOGUE workshop is scheduled towards the end of the project, i.e. June 2011. In between there will be various regional workshops, e.g. in Austria, Greece, Spain, Netherlands and Norway. These will be announced in this Newsletter and at www.prologue-eu.eu.
News on other naturalistic driving projects

**SHRP2 naturalist study starting in May 2010**

The second Strategic Highway Research Program (SHRP 2) in the USA addresses the efficiency and safety of moving people and goods on national highways. In the safety programme of SHRP 2 a large scale naturalistic driving study is planned. It is expected that in May of 2010 the SHRP 2 project will begin to instrument vehicles, assess drivers, and start a 2 year data collection process. The aim is that 3000 volunteer drivers will agree to have their cars fitted with cameras, radar, and other sensors. The primary objective of the study is to produce a rich cache of data on driving behaviour that researchers can use as the basis for safety improvements for decades to come.

Source: onlinepubs.trb.org/onlinepubs/shrp2/NDSFAQ.pdf

**DaCoTA project started in January 2010**

On 1 January, the DG TREN project DaCoTA started its work. This European project will be coordinated by Loughborough University and can be considered as exploiting further the results of the SafetyNet project and in particular, the European Road Safety Observatory (ERSO). One of the Work Packages, WP6, will be on the feasibility of using naturalistic driving data for monitoring several Safety Performance Indicators and exposure data.

Exploit the possibilities, but be focussed

Naturalistic Driving studies can be considered as a real breakthrough in road safety research. Their enormous value is in the unobtrusive observation in day-to-day traffic, which allows observing natural behaviour. This gives us insight in driver behaviour in a way that cannot be realised by more traditional research methods.

Naturalistic Driving studies allow us to collect a wide variety of data and information and, as such, allow us to answer a wide variety of research questions. For example, in the United States researchers came up with literally hundreds of research questions for the large-scale naturalistic study of their SHRP2 safety programme. The large amount of data collected in naturalistic studies may actually make it possible to address all of these questions. However, as usual, this is both an opportunity and a threat. On the one hand, we need to fully exploit the possibilities of naturalistic driving, but on the other hand we have to remain focussed and make wise decisions about the most relevant questions. I hope that the consultation process foreseen in PROLOGUE through both the User Forum and the Advisory Board will be helpful in making such wise decisions, resulting in a series of research questions that are of interest to many, if not all, potential stakeholders including policymakers, industry, interest groups, et cetera.

So far, the research questions of naturalistic studies mainly relate to road safety. As a typical example, let’s look at fatigue and distraction. Fatigue and distraction are increasingly considered as contributing factors to crashes. Experimental research has provided some understanding. However, a naturalistic study would allow for unobtrusive observations of real driving behaviour and, hence, for much more reliable and valid results on both the exposure to those behaviours as well as their risk. In addition to road safety, naturalistic driving studies can be expected to provide very useful information in areas like eco-driving and traffic management. All in all, I am convinced that a large-scale naturalistic study can substantially increase our understanding of road safety, traffic flow and emissions and that it would provide a well-founded basis for the development of new measures or for optimizing existing measures.

Fred Wegman
Managing Director SWOV and Chairman of PROLOGUE’s Advisory Board
Contact and imprint
This is the first PROLOGUE Newsletter. The PROLOGUE Newsletter will be published twice a year during the course of the project.

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